CLAIMS:

1. Apparatus for measuring uniformity of a laminar material as the material is delivered from a laminar material delivery machine, the apparatus comprising:

a measurement rig arranged across the width of the laminar material, the measurement rig carrying:

a linear array of light sources arranged to direct light onto the laminar material; and

a linear array of optical sensors, each optical sensor being paired with a light source and being configured to receive light reflected by the laminar material from at least the light source with which it is paired and to thereafter produce a signal indicative of the amount of reflected light it receives; and

a processor for receiving signals from each of the optical sensors and processing each of the signals to produce measures of uniformity of the linear material for each optical sensor, whereby said apparatus produces measures of uniformity related to spaced apart locations across the width of the laminar material.

2. Apparatus as claimed in claim 1, wherein each light source and optical sensor pair are arranged with their major optical axes substantially perpendicularly to the direction of travel of the laminar material.

3. Apparatus as claimed in claim 2, wherein said major optical axes of each light source and optical sensor pair are offset to perpendicular such that they intersect at the web, with the bisector of their optical axes being perpendicular to the web.

4. Apparatus as claimed in claim 1, wherein said light sources are light emitting diodes (LEDs).

5. Apparatus as claimed in claim 1, wherein said

processor is configured to obtain a signal indicative of the amount of light received at each optical sensor at predetermined intervals.

6. Apparatus as claimed in claim 5, wherein the outputs of the sensors are read sequentially by said processor to thereby produce a raster scan of the textile web.

7. Apparatus as claimed in claim 4, wherein said measurement rig excites said LEDs individually and the signal from each optical sensor corresponds to the period during which the optical sensors paired LED is excited.

8. Apparatus as claimed in claim 6, wherein the predetermined interval between scans is chosen so that the distance the web travels between scans matches the separation between adjacent sensors.

9. Apparatus as claimed in claim 8, wherein said apparatus comprises a speed sensor for monitoring the speed of the web delivery system and said processor determines the pre-determined interval from the monitored speed.

10. Apparatus as claimed in claim 1, wherein the measurement rig comprises a mounting block within which the light sources and the optical sensors are mounted.

11. Apparatus as claimed in claim 10, wherein the optical sensors are mounted within individual holes and set back from an aperture of their respective hole which faces the laminar material.

12. Apparatus as claimed in claim 10, wherein the light sources are mounted within an elongate slot extending the length of the mounting block whereby light

sources may provide illumination for optical sensors adjacent to the optical sensor with which they are paired.

13. Apparatus as claimed in claim 2, wherein the optical axes of the light sources and sensors intersect approximately 50mm below the measurement rig.

14. Apparatus as claimed in claim 1, wherein said measurement rig carries a sheet of transparent material between said linear array of light sources and the laminar material, the transparent material being angled to the plane of the scanner, whereby a portion of the light from the light sources can be reflected to said optical sensors, and processed to produce a calibration measure.

15. Apparatus as claimed in claim 14, wherein said measurement rig is mounted so it can be lifted relative to said web to perform a calibration.

16. Apparatus as claimed in claim 1, wherein said processor is configured to produce a measure of uniformity in the form of a measure of web aerial density whereby said apparatus is configured to produce measures of uniformity for a laminar material which is a textile web.

17. Apparatus for measuring uniformity of a laminar material as the material is delivered from a laminar material delivery machine, the apparatus comprising:

a measurement rig arranged across the width of the laminar material, the measurement rig carrying:

a linear array of light sources arranged to direct light onto the laminar material, and

a linear array of optical sensors, each optical sensor being paired with a light source and being configured to receive light transmitted through the laminar material from at least the light source with which it is paired and to thereafter produce a signal indicative

of the amount of transmitted light it receives; and

a processor for receiving signals from each of the optical sensors and processing each of the signals to produce measures of uniformity of the linear material for each optical sensor, whereby said apparatus produces measures of uniformity related to spaced apart locations across the width of the laminar material.

18. Apparatus as claimed in claim 17, comprising two arrays of light sources arranged on opposite sides of the laminar material and two arrays of optical sensors also arranged on opposite sides of the material each light source and optical sensor being paired with a light source on the opposite side of the laminar material, whereby said apparatus can produce measures of uniformity based on light transmitted in one or both directions.

19. Apparatus as claimed in claim 17, wherein each light source and optical sensor pair are arranged with their major optical axes substantially perpendicularly to the direction of travel of the laminar material.

20. Apparatus as claimed in claim 19, wherein said major optical axes are offset to perpendicular such that they intersect at the web, with the bisector of the optical axes being perpendicular to the web.

21. Apparatus as claimed in claim 17, wherein said light sources are light emitting diodes (LEDs).

22. Apparatus as claimed in claim 17, wherein said processor is configured to obtain a signal indicative of the amount of light received at each optical sensor at predetermined intervals.

23. Apparatus as claimed in claim 22, wherein the outputs of the sensors are read sequentially by said

processor to thereby produce a raster scan of the textile web.

24. Apparatus as claimed in claim 1, wherein the LEDs are excited individually and the signal is taken from each optical sensor while its corresponding LED is excited.

25. Apparatus as claimed in claim 22, wherein the predetermined interval between scans is chosen so that the distance the web travels between scans matches the separation between adjacent sensors.

26. Apparatus as claimed in claim 25, comprising a speed sensor for monitoring the web delivery system and wherein said processor determines said interval from the monitored speed.